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Marine Casualty
Investigations

Enquêtes sur les
accidents maritimes

**Investigation
Report
to the Minister
pursuant
to sections
477 or 480
of the
Canada
Shipping Act
(1985)**

**Rapport
d'investigation
au Ministre
conformément
aux articles 477
ou 480 de la Loi
sur la marine
marchande
du Canada
(1985)**

Canada

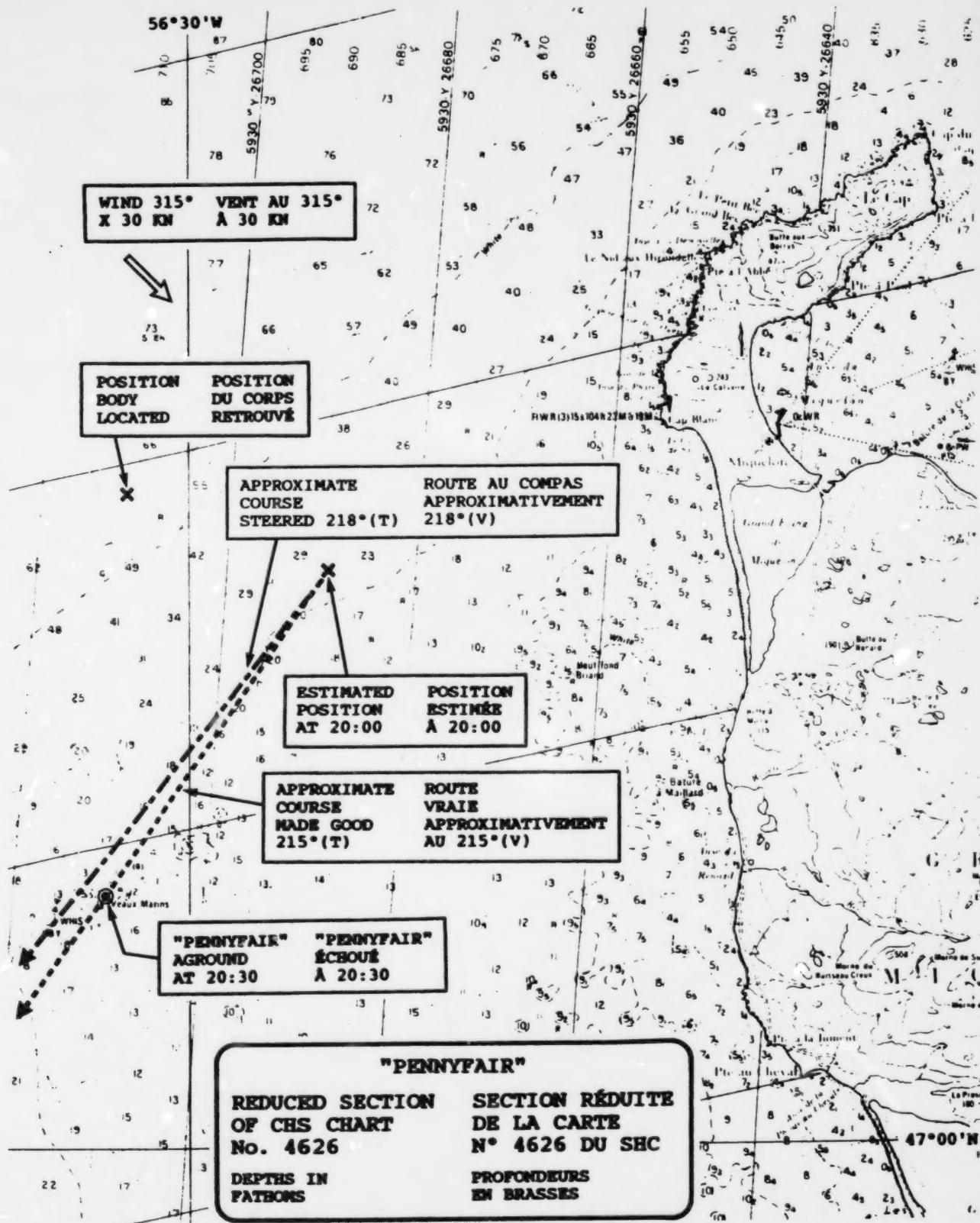
- E R R A T A -

Report No 532 - "PENNYFAIR"

A typographical error has been discovered in the courses shown on the charts of the above report. Please replace this page with the enclosed corrected chart page.

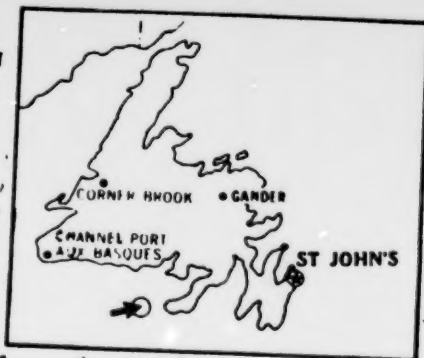
MARINE CASUALTY INVESTIGATIONS
110 O'CONNOR
OTTAWA, ONTARIO
K1A 0N5

January 1990



47°30'N

See CAUTION No. 1



COURSE
STEERED
218°(T)

ROUTE
AU COMPAS
218°(V)

20:00

20:30
AGROUND

20:30
ÉCHOUE

COURSE
MADE GOOD
215°(T)

ROUTE
VRAIE
215°(V)

CAUTION No. 1

TO
FISHING
GROUNDS
VERS
LES LIEUX
DE PÊCHE

GRANDE
MIQUELON
(France)

PETITE
MIQUELON
(LANGLADE)
(France)

"PENNYFAIR"

SECTIONS OF
CHS CHART
Nos. 3 4015
AND 4016

SECTIONS DES
CARTES Nos 4016
ET 4015
DU SHC

DEPTHS IN
FATHOMS

PROFONDEURS
EN BRASSES

56°30'W

Ce rapport est aussi disponible en français.

REPORT OF INVESTIGATION INTO THE
CIRCUMSTANCES SURROUNDING THE STRANDING
AND LOSS OF THE CANADIAN FISHING VESSEL
"PENNYFAIR" ON SEAL ROCKS, OFF THE
FRENCH ISLAND OF GRAND MIQUELON,
SEPTEMBER 12, 1988, RESULTING IN THE
LOSS OF ONE LIFE.

REPORT No. 532

These sections of the Investigation Report prepared pursuant to Section 477, or of the Preliminary Inquiry Report prepared pursuant to Section 480, of the Canada Shipping Act, (1985) are released for accident prevention purposes only and are confined to cause-related circumstances.

This report and its contents may be deficient and misleading if used in any other process and are not to be used or admitted in evidence in any legal proceedings, either civil or criminal, arising out of the casualty described in the report. The statements, opinions and findings in the report are those of the Marine Casualty Investigations Division only and do not constitute admissions made by or on behalf of Her Majesty the Queen in right of Canada.

Ces sections du rapport d'investigation ou du rapport préliminaire sont rédigées en vertu des articles 477 et 480 respectifs de la Loi sur la marine marchande du Canada (1985) et ne sont publiées qu'à des fins de prévention des accidents seulement et ne portent que sur les circonstances entourant le cas à l'étude.

Ce rapport et son contenu peuvent être insuffisants et trompeurs s'ils sont utilisés à d'autres fins et ne peuvent être utilisés ou acceptés comme preuve dans quelque procédure que ce soit, au civil ou au criminel, même si ces procédures découlent de l'accident décrit dans ledit rapport. Les déclarations, les opinions et les constatations de ce rapport appartiennent uniquement à la section des Enquêtes sur les accidents maritimes et ne constituent pas une acceptation de la part ou au nom de Sa Majesté du chef du Canada.

REPORT OF INVESTIGATION INTO THE CIRCUMSTANCES SURROUNDING
THE STRANDING AND LOSS OF THE CANADIAN FISHING VESSEL
"PENNYFAIR" ON SEAL ROCKS, OFF THE FRENCH ISLAND OF GRAND
MIQUELON, SEPTEMBER 12, 1988, RESULTING IN
THE LOSS OF ONE LIFE

Particulars of Vessel

Name	"PENNYFAIR"
Official number	328032
Port of Registry	St. John's, Newfoundland
Call sign	VC 6015
Gross tonnage	286.86
Net tonnage	102.25
Length	34.50 m
Breadth	7.53 m
Depth	3.60 m
Draught (estimated at time of incident)	3.05 m fwd 4.27 m aft
Type	Steel, scallop dragger
Built	1967, Pictou, N.S.
Propulsion	One, Stork-Werkspoor diesel engine, 478 kW
Cargo	30 tonnes ice and fishing supplies
Crew	16 (including master)
Owners	Fishery Products International Limited St. John's, Nfld.

Navigating Equipment

Radar (1)	JRC JMA 306 MKII
Radar (2)	Furuno FR 903 Raster Scan
Echo Sounder (1)	Simrad EX

Echo Sounder (2)	Simrad CS 115
Loran C (1)	JRC JNA 760
Loran C (2)	Internav LC 360 (mate's property)
Loran C (3)	Internav LC 300 (master's property)
Loran C (4)	Furuno LC 90
Video Plotter	Furuno GD 180, interfaced with Loran C (4)
VHF	Sailor RT 144 B
SSB	Marconi CH 100
GRS Radio	Realistic TRC 418
Magnetic Compass	Cassens & Plath (adjusted March 1988)
Auto Pilot	Robertson AP-7

- Note:**
1. All times in this report are expressed in Atlantic Daylight Saving Time (UTC minus 3 hours)
 2. All references to the Canada Shipping Act refer to Chapter S-9-1985 of the Revised Statutes of Canada.
 3. The official name of the rocks on which the "PENNYFAIR" stranded is Veaux Marins. As Seal Rocks is the name by which Veaux Marins is known to fishermen of the Maritime Provinces of Canada, this appellation is used throughout in this report.

Background

During the evening of September 12, 1988, the Canadian fishing vessel "PENNYFAIR" was proceeding towards Saint Pierre bank from Harbour Breton, Newfoundland when the vessel grounded and stranded on Seal Rocks, off the French Island of Grand Miquelon.

The crew abandoned the "PENNYFAIR" into an inflatable liferaft, however, the master fell into the water and in spite of efforts to save him, drowned.

All survivors were rescued shortly afterwards and the body of the master subsequently recovered.

The "PENNYFAIR" was declared a constructive total loss by the underwriter, with an insured value in the order of \$1,000,000.

Although the vessel contained approximately 38,700 litres of diesel fuel along with other lubricants and petroleum products, no significant amount of pollution was reported.

Particulars of Deceased

Name Frank Strowbridge
Position on board vessel Master
Age 42 years
Address Riverport, Nova Scotia

Particulars of Injured

Name Clyde Green
Position on board vessel Cook
Age 47
Address Western Shore, Nova Scotia
Fractured leg

Name Jerome Selig
Position on board vessel Deck-hand
Age 30
Address Bridgewater, Nova Scotia
Back injury

Name Kenneth Strowbridge
Position on board vessel Deck-hand
Age 31
Address Riverport, Nova Scotia
Shoulder injury

Name Gary Keeping
Position on board vessel Deck-hand
Age 29
Address Italy Cross, Nova Scotia
Fractured ankle

Narrative

The fishing vessel "PENNYFAIR" left Harbour Breton,

Newfoundland at approximately 1245, September 12, 1988 and proceeded towards St. Pierre bank to engage in scallop dragging.

At approximately 1700, the "PENNYFAIR" entered the harbour at the French island of Miquelon and by 1730 was secured alongside. After obtaining permission from the local customs officer, some of the crew were permitted ashore to take advantage of duty free shopping.

Within the hour, all of the crew had returned to the vessel and at approximately 1830, the "PENNYFAIR" departed Miquelon to resume the voyage to the fishing grounds.

Once clear of the harbour, it was decided to proceed outward around the northern end of Grand Miquelon Island then set a course towards the intended fishing area.

After leaving Miquelon, the master informed the mate that he would remain on watch with him until 2000. Just prior to 2000 the master had determined the position where fishing operations were to commence. This position was then entered into the Loran 'C' receiver as a way point, with the vessel's true course to steer (218°T) displayed on an interfaced video plotter.

The vessel was being steered by autopilot which was not interfaced with the Loran 'C'. Minor alterations of course were made by autopilot to maintain the course to steer as indicated by the Loran 'C'/video plotter.

At 2000, the mate took over the watch from the master and observed by radar that the vessel was between 2½ to 3 miles off the western coastline of Grand Miquelon Island. The vessel's heading was 218°T with the course being maintained by auto pilot. Speed as indicated by the video plotter varied between 9.8 to 9.9 knots, while the main engine tachometer located in the wheel-house showed 750 rpm. When it was established that the distance to the intended fishing area was 38 miles, the master retired to his cabin.

During this time a small target would occasionally appear on the radar, showing ahead and slightly to port of the vessel's intended track. When this radar target was at a range of less than 3 miles and more steady, those on watch began to look for the lights of a small vessel. When no lights were visible from the direction of this target, the second radar was switched on and allowed to warm up.

As the position of this target did not appear to change, it was assumed that it may have been a high flyer buoy

attached to fishing gear. When this target appeared in the radar at an estimated $\frac{1}{4}$ mile from the vessel's position, a search light was used to enable positive identification.

When the surrounding area was illuminated, breaking seas became evident and the vessel's engine controls put to full astern in an immediate attempt to take way off the "PENNYFAIR". The master was immediately alerted to the situation, however, in spite of the action taken the "PENNYFAIR" was hard aground at approximately 2030, moments after the vessel's engine was running full astern.

As the master broadcast a 'Mayday' over channel 16 VHF, the crew donned immersion suits and prepared to abandon the vessel by launching the liferaft. The 'Mayday' was acknowledged by Stephenville Coast Guard Radio at 2038 and the vessel's Loran C position given as (5930) 14408, 26710 (47°02'N, 56°32'W).

After grounding, the "PENNYFAIR" pounded and rolled violently, then the engine-room began to flood. Soon the boat deck was awash with water surging across the wheel-house and within an estimated five minutes the vessel's generator had stopped, leaving the interior of the "PENNYFAIR" in darkness.

At approximately 2040, the decision was made to abandon the stranded vessel into a 20 person inflatable liferaft. Soon all but the master, mate, chief engineer, second engineer and one deck-hand had boarded the liferaft, however, some of the crew were injured during the process. As the master did not have his immersion suit completely on, it was suggested that he be next to board the liferaft.

During his attempt to jump into the liferaft, the master appears to have hesitated momentarily, missed the survival craft and plunged into the water. The deck-hand who remained on board, the master's brother, immediately jumped into the water to assist. As the deck-hand attempted to hold on to the master and keep him afloat, the remainder of the crew boarded the liferaft.

After cutting the painter, the crew in the liferaft attempted to paddle towards the two men in the water, however, in spite of all efforts, appeared to be drifting away from them.

In an attempt to assist the master and deck-hand, the second engineer entered the water with the liferaft rescue quoit and line attached to his arm. Although the second engineer was initially able to swim close to the master and

deck-hand, he was unable to reach them and was forced to return to the liferaft.

The liferaft sea anchor was soon deployed from the equipment pack, however, by this time the crew had lost sight of the master and deck-hand. It was decided to ignite one of the distress flares to illuminate the area and attempt to locate the two men in the water. When this action was not successful, the crew in the liferaft waited for a short time then decided to ignite a distress rocket in an attempt to attract the attention of residents on Miquelon.

After radio contact was lost with the "PENNYFAIR", search and rescue efforts began, with various government owned resources tasked at 2046.

By 2328, the general cargo vessel "URRIDA" sighted the liferaft and at 2354 the 14 survivors were safely on board the Miquelon vessel, "DAUPHIN". Due to the injuries received by some of the survivors while abandoning the "PENNYFAIR", the "DAUPHIN" left the search area and proceeded to Miquelon at 0030, September 13.

After jumping into the water to assist the master, the deck-hand attempted to hold him above the surface. Although he struggled to keep hold of the master, the deck-hand was forced to let go and was unable to recover him.

The deck-hand then attempted to return on board the "PENNYFAIR" and await rescue, however, was prevented from doing so by the sea conditions.

After numerous unsuccessful attempts at re-boarding the "PENNYFAIR", the deck-hand held on to a length of plank which had drifted clear of the vessel.

Aircraft in the area appeared to be searching for the liferaft and the deck-hand decided as a result of this he should attempt to propel himself towards the lights of Miquelon.

By 0117, September 13, the deck-hand was rescued from the water by the fisheries patrol vessel "GROSSWATER BAY" approximately one mile south of the "PENNYFAIR". The "GROSSWATER BAY" remained in the search area until 0725, then proceeded to St. Pierre to land the deck-hand.

A search aircraft located a body in position 47°05.6'N, 56°30.8'W at 1227. The body was subsequently recovered by the CCGS "JACKMAN" and transported to Grand Bank, Newfoundland where it was identified as the master of the

"PENNYFAIR".

The survivors were reunited at St. Pierre, then repatriated to their homes in Newfoundland and Nova Scotia.

The "PENNYFAIR" remained stranded on Seal Rocks and was declared a constructive total loss by the insurance underwriters. Reportedly, during a subsequent attempt at salvage by French interests, the "PENNYFAIR" slipped from the rocks and sank.

Analysis

1. Weather

When the casualty occurred weather conditions were reported as clear, with approximately 10 miles visibility and NW'ly winds estimated at 30 knots. Seas and swell were estimated at 2 m with an air temperature of approximately 10°C.

During September 13, 1988, sea temperature was recorded at 12°C in the search area.

2. Voyage specifics

The "PENNYFAIR" left Riverport, Nova Scotia, August 31 and fished for scallops on the St. Pierre bank. On September 10, the vessel landed a catch of 13,400 kg at Harbour Breton, Newfoundland.

As the catch resulting from the next voyage was to be landed at Riverport, Nova Scotia, some of the crew members inquired of the master if it would be possible to call at Miquelon and take advantage of duty-free liquor prices before returning to their home port.

The master agreed to this request with the understanding that only a reasonable amount of liquor be purchased by each crew member and not consumed on board the vessel.

Reportedly, the master also advised the crew, through their union delegate, that if any liquor was consumed on board, all such purchases would be confiscated and jettisoned.

Reportedly, the vessel's call at Miquelon was not known to the owners until after the casualty. However, since the casualty, Company Standing Orders require that no vessel shall use the French islands without previous

approval or unless under emergency conditions.

There is no evidence to suggest that the vessel took fuel or galley stores while at Miquelon.

3. Navigation practices

Bridge watches on board the "PENNYFAIR", as in many other fishing vessels, are divided between the master and mate, with six hours on, followed by six hours off. During this voyage the master was keeping the 12 to 6 watch and the mate the 6 to 12.

Each crew member also stands a one hour 'wheel watch', performing look-out or helm duties as directed.

The passage from Harbour Breton to Miquelon was routine and uneventful. Prior to entering Miquelon harbour, CHS chart LC 4626, Saint-Pierre and Miquelon was consulted.

Although this chart remained available after leaving Miquelon, it appears it was not referred to again until just moments prior to the grounding.

Reportedly, courses were not plotted on the chart for the outward passage from the northern end of Grand Miquelon to the fishing grounds. Instead, a video plotter interfaced with a Loran C receiver, was used to determine the vessel's course to the position where fishing operations were to commence.

4. Compass course and errors

The vessel was not fitted with a gyro compass.

The magnetic compass was last adjusted in March 1988, before the installation of the vessel's new Loran 'C' and video plotter in August of the same year. As the new equipment was reported to have been installed at least 1.5 metres from the magnetic compass, it is not considered that these units would have affected the compass. The manufacturers instructions specify a separation of 1 metre.

At about 2000, after having left Miquelon, the position where fishing operations were to begin was entered as a way point on the video plotter. The true course to steer was automatically calculated from the Loran 'C' input and numerically displayed on the video plotter. The true course thus displayed was 218°(T).

The course made good from the estimated position at about 2000 to the grounding position at about 2030 was 215°(T); with a NW'ly wind, at 30 knots, a 3° easterly set is not unreasonable and it can therefore be considered that the course to steer of 218° was accurate.

Minor course corrections were made by adjusting the autopilot manually and observing the vessel's track (course made good) on the video plotter, without making direct reference to the heading of the magnetic compass.

Magnetic variation in the area of this casualty is 24°W. When the vessel's compass was adjusted in March 1988, a deviation of 3°E was found on the heading of SW (225°C). For a true course of 218°(T) the magnetic course to steer was thus 242°(m) and the compass course 239°(C).

The compass course steered between 2000 and 2030 is unknown.

5. Description of video plotter

The video plotter unit on board the "PENNYFAIR" was a Furuno, Model GD-180, with navigational input supplied by an interfaced Furuno model LC-90, automatic Loran C receiver. When information from the Loran C receiver is supplied to the video plotter, the vessel's true course, speed, position, time and distance between way points, along with other navigational information, is visually displayed on a 305 mm colour cathode ray tube. (CRT)

Although off lying dangers such as shoals, etc could be displayed as way points, event marks or within an alarm zone on the CRT, this information is not automatically indicated and must be programmed into the unit by the operator.

The video plotter and Loran C unit were both fitted in the "PENNYFAIR" during August 1988. At this time the master and mate were instructed by the equipment supplier as to the operation of the unit, including use of a computer type 'menu' system, for approximately one and one half to two hours. Operation manuals were supplied to the vessel along with the equipment.

After their period of instruction, both the master and mate appeared to have a good working knowledge of the operation and capabilities of the video plotter.

Although this equipment is considered reliable in operation and 'state of the art' technology, electronic

aids are not intended to replace basic navigation practices such as chart work.

The following caution is printed on page 1 of the video plotter operator's manual.

Although your Video Plotter is capable of providing very accurate nav. data, no single navigational device should ever be solely relied upon. Position information obtained from it should always be double-checked against other sources such as radar, visual and celestial sightings, sounding measurements, etc. to verify the reliability of the data.

6. Lights and buoyage, west coast of Miquelon

A west cardinal whistle buoy in position 47°01'54"N, 56°31'43"W, marks the location of Seal Rocks (Veaux Marins) off the west coast of Grand Miquelon Island. This buoy does not have a light and was established during 1985.

On Cap Blanc, position 47°06'18"N, 56°23'57"W, a white flashing light with a red sector is located 31.7 m above the water. The red sector shows over Seal Rocks (Veaux Marins) 040° to 057°, with a nominal range of 18 miles. This light was established in 1883 and last altered during 1986.

Point Plate light, position 46°49'21"N, 56°24'09"W, also shows flashing white with a red sector, located 48.2 m above the water. The red sector shows over Seal Rocks (Veaux Marins) 155° to 163° with a nominal range of 10 miles. This light was also established in 1883 and last altered during 1987.

Based on a reciprocal of the vessel's true course of 218°T from the grounding position and allowing a speed of 9.8 knots, the red sector of Cap Blanc light would have been on the port quarter of the "PENNYFAIR" at approximately 2015. Under these conditions the red sector of Pointe Plate light would have been on the vessel's port bow at approximately 2024.

As those on watch were attempting to make a positive identification of a radar target prior to the grounding, it appears that the red sector lights were not noticed.

Although the radar target was not positively identified, it may reasonably be assumed that it was the west

cardinal whistle buoy located off Seal Rocks.

7. Events in the engine-room

Moments prior to the grounding, the second engineer had left the engine-room for a few minutes in order to prepare a snack, when he heard the main engine being run full astern. The second engineer then proceeded to the wheel-house, where the mate informed him the vessel was going to ground and to alert the off-watch crew.

Upon being advised of the situation, the chief engineer proceeded to the engine-room as the "PENNYFAIR" struck and started the bilge pumps, while the second engineer assisted in distributing immersion suits to the crew.

After starting the bilge pumps the chief engineer left the engine-room and was in the process of donning an immersion suit when the main engine stopped. The master ordered the main engine restarted and the second engineer, wearing an immersion suit, proceeded down into the engine-room. As he proceeded down into the engine-room, the second engineer observed a large bore of water entering the machinery space from an area aft of the main engine, near the control station. As a result of the rising water level in the engine-room the second engineer was unable to proceed further and left the area.

The second engineer switched the boat deck lights on, however, the generator stopped within an estimated five minutes after the vessel grounded.

8. Abandoning the vessel

Moments after the "PENNYFAIR" grounded, the off watch crew members were alerted to the situation and immersion suits were distributed. As the master broadcast a 'Mayday', the vessel's twenty-person liferaft was launched and inflated.

All crew members had mustered in the wheel-house and on the boat deck within an estimated five to ten minutes after the grounding. By 2040, the master reportedly gave the order to abandon the "PENNYFAIR" and within minutes all but the master, mate, chief engineer, second engineer and a deck-hand had boarded the inflatable liferaft.

With the violent movement of the grounded vessel the master appeared to have difficulty standing while

attempting to put on his immersion suit. As a result it was suggested that the master be next to board the liferaft, then once on board he would be able to complete donning his immersion suit.

The master was reported to have attempted to board with his back toward the liferaft which was surging up and down in the swell, hesitated when told to jump and plunged into the water. The remainder of the crew immediately boarded the liferaft, with the exception of the deck-hand, who jumped from the vessel to assist his brother, the master.

All crew members were reported to have remained calm and abandoned the vessel in an orderly manner.

9. Search and rescue

At 2035, Stephenville Coast Guard Radio received a distress call from the "PENNYFAIR" on channel 16 VHF, advising that the vessel was aground and giving a Loran C position.

By 2040, after confirming the vessel's name and position, Stephenville Coast Guard Radio informed the Marine Rescue Sub Centre (MRSC) at St. John's, Newfoundland. The Rescue Co-ordination Centre at Halifax, Nova Scotia was advised of the situation at 2042, and within minutes various government SAR resources were tasked.

At 2114, two French vessels, the "DAUPHIN" and the "MIQUELON", prepared to depart from Miquelon to assist in the search.

By 2148, the general cargo vessel "URRIDA" reported to the MRSC that flares were sighted and estimated an ETA to that position within one and one half hours. At 2328, the "URRIDA" sighted the liferaft and reported NW winds of 25 to 30 knots with two metre seas.

An attempt was made by the "URRIDA" to rescue the survivors from their liferaft; however, due to the relatively high freeboard of the vessel and the sea conditions, the effort was not successful.

At 0012, September 13, the Miquelon vessel "DAUPHIN" reported that 14 of the crew from the "PENNYFAIR" were safely on board, however, two were missing. By 0030, the "DAUPHIN" left the search area and proceeded towards Miquelon as three of the survivors were injured while abandoning the "PENNYFAIR".

At approximately 0117, the fisheries patrol vessel "GROSSWATER BAY" reported that one survivor, wearing an immersion suit, was now safely on board after being rescued from the water one mile south of the "PENNYFAIR".

The fishing vessel "L.P. MAC DONALD" reported that an empty immersion suit was recovered in position 46°59'N, 56°30'W, some three miles SSE of the "PENNYFAIR" at 0151.

By this time it was estimated that at least 10 vessels were assisting in the search, while aircraft illuminated the area with flares. The search continued and involved three military aircraft, four Canadian government vessels, two French vessels and one general cargo vessel and eight fishing vessels.

At approximately 1227, a Buffalo aircraft, R457, located a body in position 47°05.6'N, 56°30.8'W, some 3 miles north of the casualty position, which was subsequently recovered by the CCGS "JACKMAN". The body was not dressed in an immersion suit or any other personal flotation device.

After receiving instructions from RCC, the "JACKMAN" proceeded to Grand Bank, Newfoundland arriving at 1548, where the local RCMP detachment held the body pending identification.

10. Survival and lifesaving equipment

The "PENNYFAIR" complied with the relevant sections of the Large Fishing Vessel Regulations regarding the amount and type of approved equipment carried on board.

Equipment used during the incident is as follows:

Immersion suits: The vessel carried 17 Narwhal type immersion suits, stowed in a locker located in the main deck accommodation. All but the master were able to completely don their immersion suits before abandoning the vessel. One of the survivors was in the 12°C sea water for approximately four and one-half hours and without the protection and flotation provided by an immersion suit, his chances of survival would have been slight.

Inflatable liferaft: The vessel carried one twenty-person RFD inflatable liferaft, fitted with an 'A' survival pack and last serviced during January 1988.

The liferaft was stowed in a rack on the starboard boat deck, just aft of the wheel-house.

The liferaft was launched by the vessel's crew and inflated fully and upright when the painter was pulled. Once on board the liferaft and clear of the vessel, the sea anchor was deployed and sea sick tablets distributed to the survivors. The rescue quoit was used as a crew member attempted to rescue the master and deck-hand from the water. During this time hand flares were used to illuminate the area, while later both distress rockets and flares were used to attract the attention of search vessels. Fourteen of the survivors remained in the liferaft for approximately three and one-half hours before being rescued.

Lifeboats: The vessel was fitted with three wood 5.5 m dories, stowed aft on the boat deck under a single arm radial davit. In the opinion of the crew, the dories would have been difficult, if not impossible to launch under the prevailing conditions.

R/T: The vessel was fitted with one VHF and one SSB radio telephone. The distress message was transmitted via channel 16 VHF and received by Stephenville Coast Guard Radio. Electrical power to the VHF was supplied from the vessel's 24 volt DC battery bank, while the SSB depended on the 115 volt AC main supply.

11. Cause of death and alcohol consumption

An autopsy was conducted on the body of the master during September 14, at the Health Sciences Centre, St. John's, Newfoundland. The findings of this autopsy indicate that death was a result of drowning.

Toxicology tests indicate that a general drug screen proved negative, however, his alcohol level was 184.4 mg per 100 ml of blood.

A study on blood alcohol measurements made by the Defence and Civil Institute of Environmental Medicine entitled 'A Brief Guide to the Units and Interpretation of Blood Alcohol Measurements' states in part:

Above 150 mgm% (150 mg of alcohol per 100 ml of blood) is certainly 'under the influence' and at 200 mgm% the person is 'stumbling and falling'.

Reportedly liquor bottled for sale in St. Pierre/Miquelon generally has a higher alcohol content

than similar brands readily available in Canada. As a result, consumption of an amount of liquor, usually considered to be moderate, could result in an unexpected degree of influence, however all purchases made in Miquelon were reportedly not opened and were stowed away as per the master's orders.

According to surviving crew members, the master had one drink with an acquaintance on board another vessel prior to departing Harbour Breton. After the "PENNYFAIR" had cleared Harbour Breton, a crew member brought the remainder of a bottle of rum, estimated to be about a quarter of a bottle, to the wheelhouse. At that time an undetermined number of the crew, including the master, finished the contents of the bottle.

In addition to the liquor, a small quantity of premium European beer was also purchased at Miquelon. The master was reported to have consumed one bottle of this beer after the "PENNYFAIR" had cleared the berth at Miquelon.

Surviving crew members indicated that the master did not exhibit any symptoms of intoxication and that he appeared rational and coherent.

When advised of the autopsy results during subsequent interviews crewmembers appeared suprised at the master's high blood alcohol level.

Reportedly, other than the bottle of beer consumed by the master after leaving Miquelon, he was not known to have consumed alcohol during the six or seven hours prior to the casualty.

12. Regulatory

When the casualty occurred the "PENNYFAIR" was in possession of a valid Canadian Coast Guard, Ship Safety Inspection Certificate, SIC-31, issued March 3, 1988 and dated to expire December 31, 1988, short termed for tank inspection and storm valve repairs. Both the master and mate held certificates of competency of the grade required by the Canada Shipping Act for a large fishing vessel.

Although the chief engineer did not hold the grade of Certificate required by the Canada Shipping Act, this did not contribute in any way to the casualty. The chief engineer was the holder of a Fourth Class (Motor) Certificate and, upon proof of 12 month additional sea

service as engineer and payment of the required fee, could have had his certificate endorsed as Chief Engineer of a Motor Driven Fishing Vessel without further examination.

A fire and lifeboat drill was conducted on board the vessel prior to leaving Riverport, Nova Scotia on August 31.

13. Previous casualties

In 1973, the Canadian FV "CAPE BRULE" stranded on Seal Rocks and was lost. The casualty was the subject of a Formal Investigation which determined that those on watch had failed to recognise the red sectors of the lights on Miquelon Head and Pointe Plate. These red sectors cover Seal Rocks.

With the exception of the "PENNYFAIR", Marine Casualty Investigations' computerized records, kept since 1975, contain no report of a casualty at Seal Rocks.

14. Experience and qualifications

The master had been in command of the "PENNYFAIR" since the vessel was commissioned as a scallop dragger during March, 1986. He had been engaged in the fishing industry all of his adult life, and in command of fishing vessels since December 1979.

He held a Certificate of Competency as a Fishing Mate, issued March 1978 which had been endorsed for Fishing Master, Class III, May 1980.

The mate had been serving in that capacity on board the "PENNYFAIR" since March 1986. He holds a Certificate of Competency as a Master Home Trade, 350 tons, issued during April 1974.

With the exception of three years, he has served in fishing vessels as a deck-hand, mate and relief master since 1964.

The chief engineer had been serving in the "PENNYFAIR" since March 1986. He has been serving in fishing vessels for the past 16 years, with 11 years experience as an engineer. He has nine years service as a chief engineer in fishing vessels and holds a Certificate of Competency as a Fourth Class Marine Engineer (Motor) issued during September 1981.

The second engineer had served in the "PENNYFAIR" since March 1986. He has been serving as a fishing vessel engineer since 1978 and holds a Certificate of Competency as a Fourth Class Marine Engineer (Motor), issued during May 1988.

The deck-hand who was rescued after approximately four and one-half hours in the water, had been serving in fishing vessels as deck-hand over the past 13 years. He holds a Certificate of Competency as a Fishing Master, Class III, issued during March 1985 and had been serving in the "PENNYFAIR" as a deck-hand and relief mate since June 1986.

The remainder of the crew serving in the "PENNYFAIR" were experienced fishermen, many having joined the vessel soon after her commissioning as a scallop dragger.

Findings

The fishing vessel "PENNYFAIR" stranded during darkness and good visibility conditions on the Seal Rocks off Grand Miquelon while on a voyage to the fishing grounds, September 12, 1988, due to an error of navigation.

It would appear that the following factors contributed to the stranding:

- although readily available, an appropriate chart of the area indicating off-lying dangers did not have courses laid off on it, nor was it effectively consulted for the passage to the fishing grounds;
- electronic aids were used as the only means of navigation and positions were not plotted on the chart; and
- the intended course to the fishing grounds, as determined in this investigation from information from the electronic plotter, was dangerously close to Seal Rocks, but this fact was not recognized at the time by the crew.

It would further appear that the master lost his life due to the following:

- the violent movement of the vessel after grounding prevented him from fully donning his immersion suit; and

- his coordination and reactions would have been affected by alcohol consumption.

Other Findings

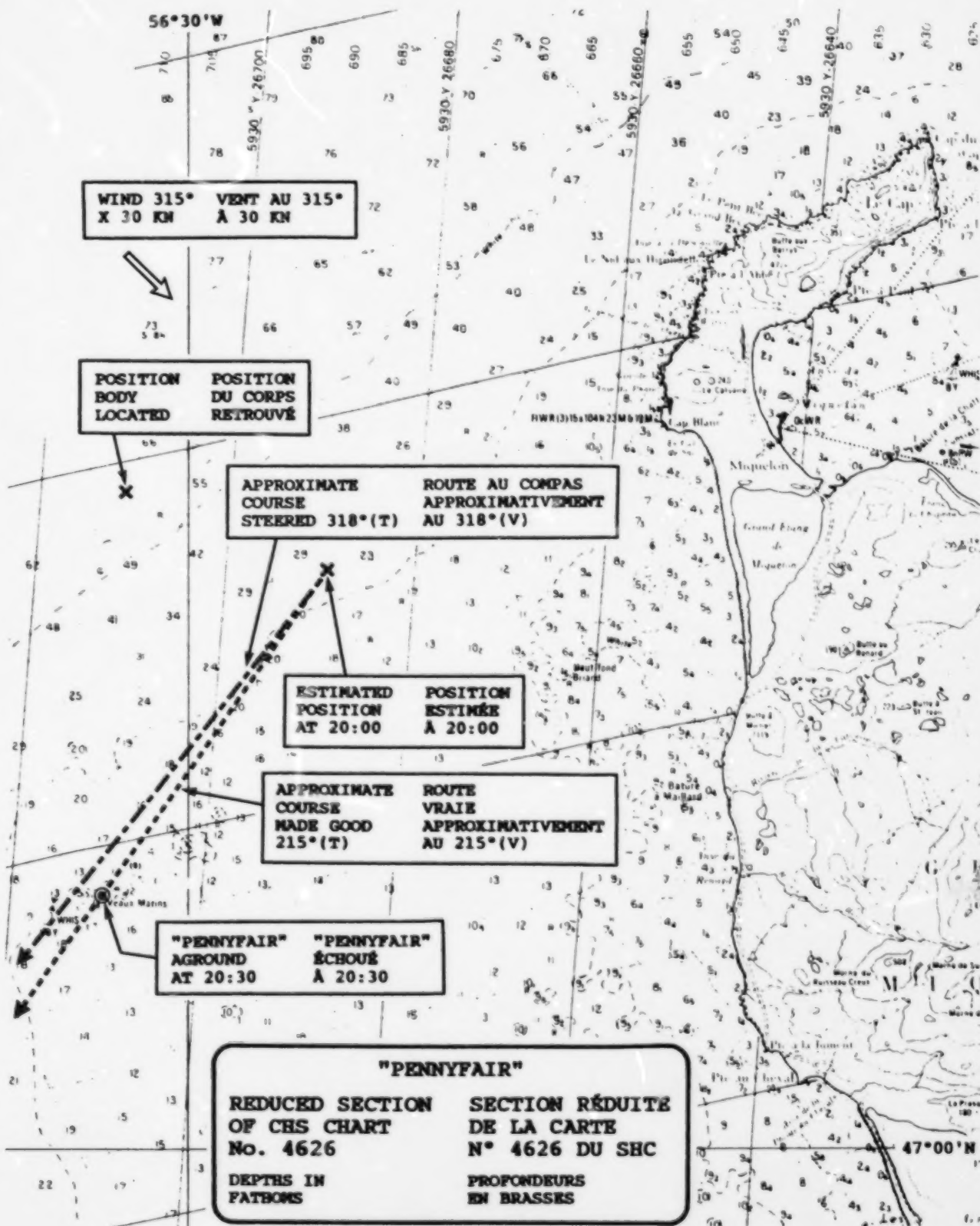
The vessel did not carry an appropriately certificated chief engineer.

The vessel put into the port of Miquelon for the express purpose of taking on board duty free goods without the knowledge or permission of her owners.

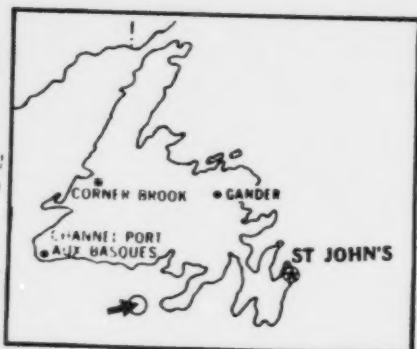
The danger (red) sectors of the lights on Miquelon Head and Pointe Plate lights were either not seen or their purpose was not known.

Marine Casualty Investigations
Transport Canada
110 O'Connor Street
Ottawa, Ontario
K1A 0N5

OTTAWA, ONTARIO
OCTOBER, 1989



47°30'N



COURSE
STEERED
318°(T)

ROUTE
AU COMPAS
318°(V)

20:00

20:30
AGROUND

20:30
ÉCHOUÉ

COURSE
MADE GOOD
315°(T)

ROUTE
VRAIE
315°(V)

TO FISHING
GROUNDS
VERS
LES LIEUX
DE PÊCHE

"PENNYFAIR"

SECTIONS OF
CHS CHART
Nos. 3 4015
AND 4016

SECTIONS DES
CARTES Nos 4016
ET 4015
DU SHC

DEPTHS IN
FATHOMS

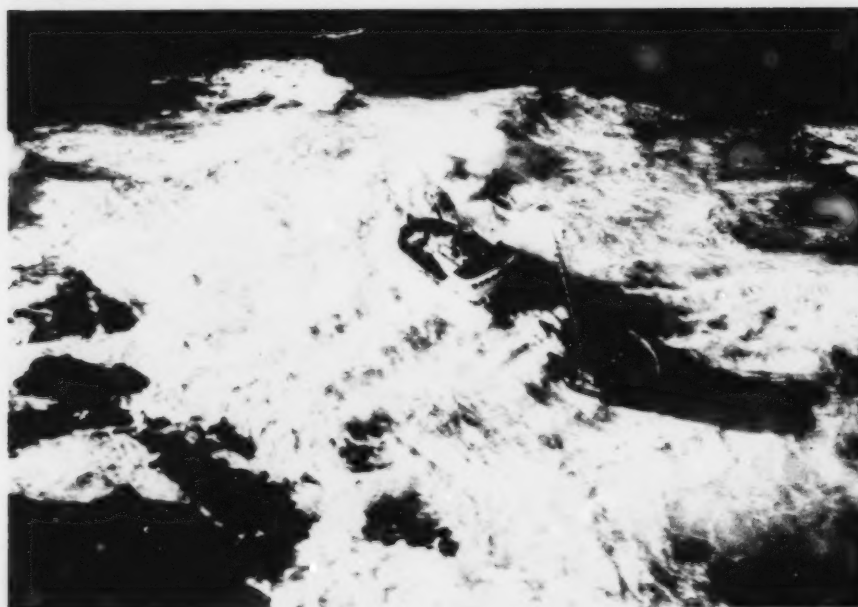
PROFONDEURS
EN BRASSES



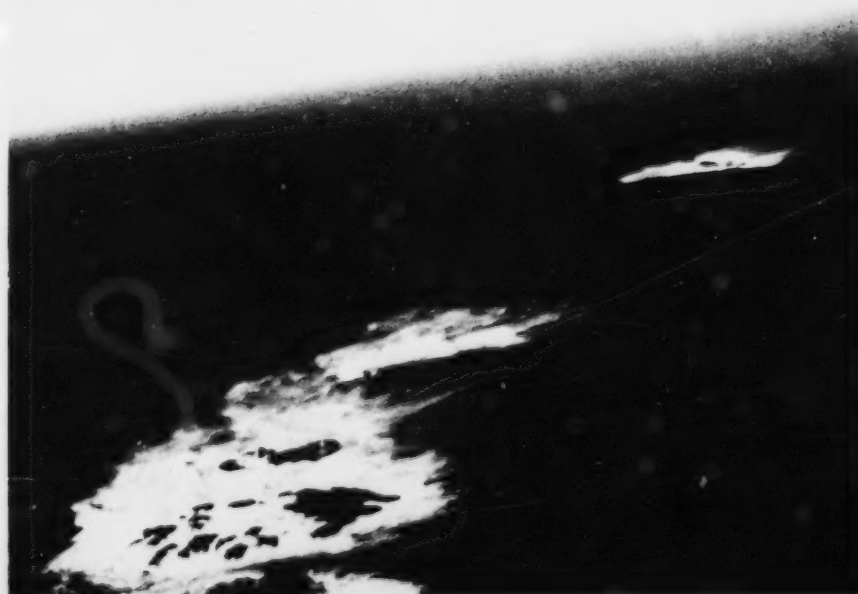
Photographs taken
from helicopter by
Fishery Products
International.

Photographies prises
d'un hélicoptère par
la Fishery Products
International.

"PENNYFAIR"
aground on
Seal Rocks.



"PENNYFAIR"
échoué sur
Seal Rocks.



"PENNYFAIR",
Seal Rocks and
coast of Miquelon.

"PENNYFAIR",
Seal Rocks et la
côte de Miquelon.